

AMENDMENT

Serial No. 09/954,586
Atty. Docket No. GP116-03.UT

Amendments to the Claims

The current status of the claims is as follows:

Claims 1-177 (Canceled)

178. (Currently Amended) ~~The A~~ set of amplification oligonucleotides of claim ~~164~~, wherein for use in amplifying *Cryptosporidium parvum* nucleic acid, said set of amplification oligonucleotides comprising:

a first amplification oligonucleotide, wherein the base sequence of said first amplification oligonucleotide consists of a base sequence selected from the group consisting of SEQ ID NO:46, SEQ ID NO:52, SEQ ID NO:58 and SEQ ID NO:64 and, optionally, a 5' sequence that is recognized by an RNA polymerase or which enhances initiation or elongation by an RNA polymerase; and

a second amplification oligonucleotide, wherein the base sequence of said second amplification oligonucleotide consists of a base sequence selected from the group consisting of SEQ ID NO:47, SEQ ID NO:53, SEQ ID NO:59 and SEQ ID NO:65 and, optionally, a 5' sequence that is recognized by an RNA polymerase or which enhances initiation or elongation by an RNA polymerase,

wherein said amplification oligonucleotides are capable of amplifying a target sequence present in a target nucleic acid derived from *Cryptosporidium parvum* under amplification conditions.

179. (Previously Presented) The set of amplification oligonucleotides of claim 178, wherein at least one of said amplification oligonucleotides includes said 5' sequence that is recognized by an RNA polymerase or which enhances initiation or elongation by an RNA polymerase.

Claims 180-218 (Canceled)

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219. (Previously Presented) A method for amplifying *Cryptosporidium parvum* nucleic acid that may be present in a sample, said method comprising:

contacting said sample with said amplification oligonucleotides of claim 178 under said amplification conditions; and

amplifying, if present, said target nucleic acid sequence.

220. (Currently Amended) The method of claim 219 further comprising:

contacting said sample with a hybridization assay probe, ~~said probe~~ comprising a third target binding region, wherein the base sequence of said ~~third~~ target binding region consists of a base sequence selected from the group consisting of SEQ ID NO:5, SEQ ID NO:9, SEQ ID NO:13 and SEQ ID NO:17, wherein said probe forms a stable probe:target hybrid with said target nucleic acid or its complement under stringent conditions, wherein said probe does not include a region in addition to said ~~third~~ target binding region that hybridizes to said target nucleic acid or its complement under said stringent conditions, and wherein said probe does not form a stable probe:non-target hybrid with nucleic acid derived from *Cryptosporidium muris*, *Cryptosporidium baileyi* or *Cryptosporidium wrairi* under said stringent conditions; and

determining whether said probe:target hybrid has formed as an indication of the presence of *Cryptosporidium parvum* in said sample.

221. (Currently Amended) The method of claim 220, wherein at least one of said ~~first and second~~ amplification oligonucleotides includes a 5' sequence that is recognized by an RNA polymerase or which enhances initiation or elongation by an RNA polymerase.

222. (Previously Presented) The method of claim 220, wherein said probe comprises at least one base region that does not stably hybridize to said target nucleic acid or its complement under said stringent conditions.

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223. (Currently Amended) The method of claim 220, wherein said probe further comprises comprising a detectable label.

224. (Currently Amended) The method of claim 220, wherein said ~~third~~ target binding region includes at least one ribonucleotide modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety or a pseudo peptide backbone which joins at least a portion of the bases of said ~~third~~ target binding region.

Claims 225-259 (Canceled)

260. (Currently Amended) ~~The kit of claim 225, wherein:~~ A kit for use in detecting the presence of *Cryptosporidium parvum* in a sample, said kit comprising:

a first amplification oligonucleotide, wherein the base sequence of said first amplification oligonucleotide consists of a base sequence selected from the group consisting of SEQ ID NO:46, SEQ ID NO:52, SEQ ID NO:58 and SEQ ID NO:64 and, optionally, a 5' sequence that is recognized by an RNA polymerase or which enhances initiation or elongation by an RNA polymerase;

a second amplification oligonucleotide, wherein the base sequence of said second amplification oligonucleotide consists of a base sequence selected from the group consisting of SEQ ID NO:47, SEQ ID NO:53, SEQ ID NO:59 and SEQ ID NO:65 and, optionally, a 5' sequence that is recognized by an RNA polymerase or which enhances initiation or elongation by an RNA polymerase,

wherein said amplification oligonucleotides are capable of amplifying a target sequence present in a target nucleic acid derived from *Cryptosporidium parvum* under said amplification conditions; and

a hybridization assay probe comprising a target binding region, wherein the base sequence of said ~~third~~ target binding region consists of a base sequence selected from the group

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consisting of SEQ ID NO:5, SEQ ID NO:9, SEQ ID NO:13 and SEQ ID NO:17, wherein said probe forms a stable probe:target hybrid with said target nucleic acid or its complement under stringent conditions, wherein said probe does not include a region in addition to said ~~third~~ target binding region that hybridizes to said target nucleic acid or its complement under said stringent conditions, and wherein said probe does not form a stable probe:non-target hybrid with nucleic acid derived from *Cryptosporidium muris*, *Cryptosporidium baileyi* or *Cryptosporidium wrairi* under said stringent conditions.

261. (Currently Amended) The kit of claim 260, wherein at least one of said ~~first and second~~ amplification oligonucleotides includes a 5' sequence that is recognized by an RNA polymerase or which enhances initiation or elongation by an RNA polymerase.

262. (Previously Presented) The kit of claim 260, wherein said probe comprises at least one base region that does not stably hybridize to said target nucleic acid or its complement under said stringent conditions.

263. (Currently Amended) The kit of claim 260, wherein said probe further comprises comprising a detectable label.

264. (Currently Amended) The kit of claim 260, wherein said ~~third~~ target binding region includes at least one ribonucleotide modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety or a pseudo peptide backbone which joins at least a portion of the bases of said ~~third~~ target binding region.